



WHITE PAPER:

WHY STATE LEGISLATURES MUST PROTECT CHILDREN AND ADOLESCENTS FROM HARMFUL “GENDER TRANSITION” TREATMENTS

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Do No Harm

I. INTRODUCTION

The United States has seen a recent and dramatic increase in the number of children and adolescents who report serious distress resulting from an inconsistency between their sex and their *perception* of their gender or sex. According to advocates of so-called “gender affirming” care, when physicians and healthcare professionals are confronted with patients suffering from this distress, those medical professionals must affirm the child’s perception and take steps to modify the patients’ bodies to conform to that perception. By changing the body to match the perception, the argument goes, the inconsistency will be eliminated or reduced, and the patient’s distress will decrease.

But there is no reliable scientific evidence that these treatments actually have this effect—as health officials in numerous countries, including England, Finland, and Sweden, have found. Meanwhile, these treatments carry dangerous and lifelong consequences, such as infertility, total loss of adult sexual function, and even death in some instances. Despite the lack of evidence to warrant the use of these treatments on children and adolescents—who are among the most vulnerable individuals in our society—advocates of “gender affirming care” continue to push for these treatments and attempt to stifle all dissent to the “affirming” model.

In the face of the failure of medical organizations to properly safeguard children from these baseless and dangerous treatments, it is the duty of the Legislature to step in and protect the children and adolescents of this State.

II. BACKGROUND

In recent years, there has been a dramatic increase in the number of minors in the United States who report some form of inconsistency between their sex and their perception of their gender or sex. This discordance may sometimes cause serious distress, leading to a diagnosed condition of gender dysphoria.¹ Available data indicate that diagnoses of gender dysphoria in minors ages 6 to 17 rose by about 20% annually between 2017 and 2020, and by 80% between 2020 and 2021, for a total of 121,882 new diagnoses during this five-year period.² Indeed, this is likely a conservative estimate because it is based solely on insurance claims.³

In the United States, advocates and practitioners of so-called “gender affirming care” for minors (individuals under the age of 18) suggest that, when faced with situations of gender discordance or dysphoria, pediatricians, mental health professionals, endocrinologists, and other healthcare professionals should give precedence to the minor’s *perception* instead of the minor’s actual sex when attempting to resolve an inconsistency between the two.⁴ If the minor’s body and the minor’s perception are inconsistent, the thinking goes, any treatment to address the inconsistency should affect *the body* and not the perception.

The course of this treatment typically involves several sequential steps. First, it commonly begins with adults or peers encouraging the minor to “socially transition.”⁵ This term encompasses a range of acts other than pharmaceutical or surgical interventions that are undertaken to help the minor present as a member of the opposite sex or something other than the minor’s sex. “Socially transitioning” could therefore include changing the minor’s preferred pronouns, wearing clothes generally

1. Am. Psychiatric Ass’n, *Diagnostic and Statistical Manual of Mental Disorders* 451–52 (5th ed. 2013).

2. Robin Respaud & Chad Terhune, *Putting Numbers on the Rise in Children Seeking Gender Care*, Reuters (Oct. 6, 2022), available at <https://www.reuters.com/investigates/special-report/usa-transyouth-data/>.

3. See *id.*

4. See, e.g., Eli Coleman, et al., *Standards of Care for the Health of Transgender and Gender Diverse People*, Version 8, 23 *International Journal of Transgender Health* S1, S50 (2022), available at <https://www.tandfonline.com/doi/pdf/10.1080/26895269.2022.2100644> (“WPATH Standards of Care 8”) (arguing that healthcare professionals “working with adolescents should promote supportive environments that simultaneously respect an adolescent’s affirmed gender identity and also allows the adolescent to openly explore gender needs, including social, medical, and physical gender-affirming interventions”); Jason Rafferty, et al., *Policy Statement*, Am. Academy of Pediatrics, *Ensuring Comprehensive Care and Support for Transgender and Gender-Diverse Children and Adolescents*, Pediatrics (Oct. 2018), available at <https://perma.cc/EE6U-PN66> (advocating for a “gender-affirmative care model” that “is oriented toward understanding and appreciating the youth’s gender experience”).

5. See, e.g., WPATH *Standards of Care 8*, *supra* n.4, at S75–76; Diane Ehrensaft, et al., *Prepubertal Social Gender Transitions: What We Know; What We Can Learn—A View from a Gender Affirmative Lens*, 19 *International Journal of Transgenderism* 251 (Mar. 9, 2018), available at <https://cogentoa.tandfonline.com/doi/full/10.1080/15532739.2017.1414649?scroll=top&needAccess=true> (explaining that “social transitioning” is “often, although not always, the first action a transgender person takes to align with their internal sense of themselves as a gendered person”); see also NHS England, *Interim Service Specification for Specialist Gender Dysphoria Servs. for Children and Young People 11–12* (Oct. 20, 2022) (noting that social transitioning “should not be viewed as a neutral act” but rather “as an ‘active intervention’ because it may have significant effects on the child or young person in terms of their psychological functioning”).

associated with members of the opposite sex, or using specific clothing or devices for the purpose of concealing a minor's secondary sex characteristics.⁶ An example of this last category is the use of so-called “chest binders,” which females wear to conceal or reduce visibility of their breasts.⁷

The next phase of the treatment occurs when puberty begins or is approaching. At this point, medical professionals often administer long-acting GnRH agonists—also known as “puberty blockers”—to delay the natural onset or progression of puberty.⁸ This phase of treatment is sold as an opportunity for the minor to “pause” the natural occurrence of puberty so the minor will have more time to discern his or her “true gender identity.”⁹ Many proponents of this treatment have publicly asserted that the administration of puberty blockers is “fully reversible.”¹⁰

After puberty blockers are administered (or even sometimes without them), the next phase involves the administration of “cross-sex” hormonal treatments.¹¹ The goal of using these cross-sex hormones is to induce the development of secondary sex characteristics commonly associated with the opposite sex.¹² For example, a male might take estrogen to develop breasts, or a female might take testosterone to develop more body hair and greater muscle mass.

Finally, the treatment process generally concludes with surgical procedures to create an appearance similar to that of the opposite sex, or at least different from the individual's actual sex.¹³ Although these surgeries remain relatively uncommon for minors, evidence shows that they have increased in recent years.¹⁴ These procedures may include “top surgery,” a euphemism for surgery such as a bilateral mastectomy, which entirely removes a female's breasts.¹⁵ They may also include “bottom surgery,” a euphemism for surgical procedures that include the removal of a minor's healthy reproductive organs, such as a penectomy, which is a removal of a male's penis.¹⁶

6. WPATH Standards of Care 8, *supra* n.4, at S54, S76.

7. *Id.* at S54 (“Chest binding involves compression of the breast tissue to create a flatter appearance of the chest.”); Eugene Kim, et al., *Oxygen Desaturation in a Transgender Man: Initial Concerns and Recommendations Regarding the Practice of Chest Binding: A Case Report*, 16 *Journal of Medical Case Reports* 333 (Sept. 4, 2022), available at <https://jmedicalcasereports.biomedcentral.com/articles/10.1186/s13256-022-03527-z>.

8. WPATH Standards of Care 8, *supra* n.4, at S45–48, S59–66.

9. See, e.g., Jack Turban, *Texas Officials Are Spreading Blatant Falsehoods About Medical Care for Transgender Kids*, *Wash. Post* (Mar. 1, 2022), available at <https://www.washingtonpost.com/opinions/2022/03/01/texas-ken-paxton-greg-abbott-misinformation-transgender-medical-care/>.

10. *Id.* (“We start with fully reversible interventions (temporary puberty blockers”).

11. See, e.g., WPATH Standards of Care 8, *supra* n.4, at S46–48, S64–66.

12. UK National Institute for Health Care and Excellence, *Evidence Review: Gender-Affirming Hormones for Children and Adolescents with Gender Dysphoria* 3 (Oct. 2020), available for download at <https://cass.independent-review.uk/nice-evidence-reviews/>.

13. See WPATH Standards of Care 8, *supra* n.4, at S48, S64–66.

14. See, e.g., Annie Tang, et al., *Gender-Affirming Mastectomy Trends and Surgical Outcomes in Adolescents*, *Annals of Plastic Surgery* (May 2022), available at https://journals.lww.com/annalsplasticsurgery/Abstract/2022/05004/Gender_Affirming_Mastectomy_Trends_and_Surgical.4.aspx.

15. WPATH Standards of Care 8, *supra* n.4, at S128.

16. See Mang L. Chen, et al., *Overview of Surgical Techniques in Gender-Affirming Genital Surgery*, *Translational Andrology and Urology* (June 2019), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6626317/#>.

After *removing* body parts associated with the individual's sex, the procedures then generally involve the *creation* of artificial body parts to approximate the appearance of the opposite sex.¹⁷ For males, for example, this could involve a "vaginoplasty," which is the construction of a vagina-like structure, typically through something called a penile inversion procedure.¹⁸ For females, it could involve a "scrotoplasty," which is the construction of a penis-like and scrotum-like structure.¹⁹

In addition to these procedures, surgery may also include non-genital procedures. For example, males may seek so-called "facial feminization" surgery or other aesthetic procedures.²⁰ And females may seek similar aesthetic procedures like pectoral implants.²¹

In sum, the goal of this treatment process is to alter the minor's body or appearance to conform them to the minor's *perception*. The treatments become increasingly invasive at each step. And the result is a dramatic change in the minor's social and physical appearance.

17. *Id.*

18. WPATH Standards of Care 8, *supra* n.4, at S258.

19. *Id.*

20. *Id.* at S130, S258.

21. *Id.*

III. THE PROBLEMS WITH THE CURRENT APPROACH

There is no reliable scientific or medical evidence that justifies the use of these treatments on children and adolescents for this purpose. In other words, there is simply no basis for concluding that these treatments lead to a benefit that outweighs the known or suspected harms and risks associated with them. Moreover, there is strong reason to doubt that minors and their parents are adequately informed of the risks and lack of benefits before these treatments are administered and inflict irreversible harm.

A. Risks

The known harms and risks of these treatments are significant. As an initial matter, the use of puberty blockers for this purpose has not been approved by the FDA, meaning that the prescription of puberty blockers as part of this treatment is entirely off label.²² Any claims about the safety and efficacy of puberty blockers are instead based on their use for precocious puberty, which is a different condition where—in contrast to these treatments—normal puberty is allowed to resume once the minor reaches an appropriate age.²³ And the suspected side effects of puberty blockers include diminished bone density, cognitive impairment, and greater risk of infertility.²⁴ In addition, puberty blockers may have permanent negative effects on adult sexual function.²⁵ Moreover, the full effect of puberty blockers on brain development and cognition are unknown.²⁶

22. Chad Terhune, et al, *As More Transgender Children Seek Medical Care, Families Confront Many Unknowns*, Reuters (Oct. 6, 2022), available at <https://www.reuters.com/investigates/special-report/usa-transyouth-care/> (“Puberty blockers and sex hormones do not have U.S. Food and Drug Administration (FDA) approval for children’s gender care.”).

23. See Annelou L.C. de Vries & Peggy T. Cohen-Kettenis, *Clinical Management of Gender Dysphoria in Children and Adolescents: The Dutch Approach*, *Journal of Homosexuality* (Mar. 28, 2012), available at <https://www.tandfonline.com/doi/abs/10.1080/00918369.2012.653300>

24. See, e.g., Silvia Ciancia, et al., *Impact of Gender-Affirming Treatment on Bone Health in Transgender and Gender Diverse Youth*, *Endocrine Connections* (Sept. 28, 2022), available at <https://ec.bioscientifica.com/view/journals/ec/11/11/EC-22-0280.xml> (“Results consistently indicate a negative impact of long-term puberty suppression on bone mineral density, especially at the lumbar spine, which is only partially restored after sex steroid administration.”); Philip J. Cheng, et al., *Fertility Concerns of the Transgender Patient*, *Translational Andrology and Urology* (June 2019), available at <https://tau.amegroups.com/article/view/26091/24253> (“Suppression of puberty with gonadotropin-releasing hormone agonist analogs (GnRHa) in the pediatric transgender patient can pause the maturation of germ cells, and thus, affect fertility potential.”); see also Michael Biggs, *Revisiting the Effect of GnRH Analogue Treatment on Bone Mineral Density in Young Adolescents with Gender Dysphoria*, *Journal of Pediatric Endocrinology and Metabolism* (Apr. 26, 2021), available at <https://doi.org/10.1515/jpem-2021-0180>; Michael Biggs, *The Dutch Protocol for Juvenile Transsexuals: Origins and Evidence*, *Journal of Sex & Marital Therapy* (Sept. 19, 2022), available at <https://www.tandfonline.com/doi/full/10.1080/0092623X.2022.2121238?scroll=top&needAccess=true>.

25. See David Larson, *Duke Health Emerges as Southern Hub for Youth Gender Transition*, *The Carolina Journal* (Aug. 31, 2022), available at <https://www.carolinajournal.com/duke-health-emerges-as-southern-hub-for-youth-gender-transition/> (Former WPATH President Marci Bowers “seemed to acknowledge these challenges, saying that ‘really about zero’ biological males who block puberty at the typical Tanner 2 Stage of puberty (around 11 years old) will go on to ever achieve an orgasm[.]”).

26. Diane Chen, et al., *Consensus Parameter: Research Methodologies to Evaluate Neurodevelopmental Effects of Pubertal Suppression in Transgender Youth*, *Transgender Health* (Dec. 11, 2020), available at <https://www.liebertpub.com/doi/10.1089/trgh.2020.0006>.

The risks associated with the use of cross-sex hormones for this purpose are similarly serious. For males, the use of cross-sex hormones is associated with numerous health risks, such as thromboembolic disease, including blood clots; cholelithiasis, including gallstones; coronary artery disease, including heart attacks; macroprolactinoma, which is a tumor of the pituitary gland; cerebrovascular disease, including strokes; hypertriglyceridemia, which is an elevated level of triglycerides in the blood; breast cancer; and irreversible infertility.²⁷ For females, the use of cross-sex hormones is associated with risks of erythrocytosis, which is an increase in red blood cells; severe liver dysfunction; coronary artery disease, including heart attacks; depression; hypertension; infertility; and increased risk of breast, cervical, and uterine cancers.²⁸ And when preceded by the use of puberty blockers, cross-sex hormones may need to be used for the rest of the individual's life because the organs responsible for hormone production—which regulate many aspects of physical and psychological health and function and not just sexual health and function—were never given a chance to fully develop.

The surgeries associated with this treatment also come with significant risks. Although the risks, complications, and long-term concerns are not entirely known, they may include fistulas, chronic infection, the need for a colostomy, atrophy, and complete loss of sensation (sexual or otherwise).²⁹ As just one example of the potentially fatal risks associated with these procedures, when a young male undergoes puberty suppression—which stunts the growth of his sexual organs and thus reduces the amount of tissue available for subsequent surgeries—a vaginoplasty may require the borrowing of issue from the colon to create a “neovagina.”³⁰ The creation of a second surgical site is associated with a far higher risk of infection and additional complications, including death.³¹

In addition, the risks of treatments later in the process, such as surgeries, cannot be fully separated from the risks of earlier treatment, such as puberty blockers. The reason the risks for these separate treatments cannot be separated is due to what is known as an “iatrogenic” effect, which means that a particular treatment may

27. See WPATH Standards of Care 8, *supra* n.4, at S254.

28. *Id.*

29. Wouter B. van der Sluis, et al., *Clinical Characteristics and Management of Neovaginal Fistulas After Vaginoplasty in Transgender Women*, *Obstetrics and Gynecology* (June 2016), available at <https://pubmed.ncbi.nlm.nih.gov/27159746/>; Jing J. Zhao, *Surgical Site Infections in Genital Reconstruction Surgery for Gender Reassignment*, *Detroit: 1984–2008*, *Surgical Infections* (Apr. 2014), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4047849/>; Mang L. Chen, et al., *Overview of Surgical Techniques in Gender-Affirming Surgery*, *Translational Andrology and Urology* (June 2019), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6626317/>; Valentin Maurer, et al., *Penile Flap Inversion Vaginoplasty in Transgender Women: Contemporary Morbidity and Learning-Curve Analysis from a High-Volume Reconstructive Center*, *Frontiers in Surgery* (Feb. 23, 2022), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8906498/>; Valeria P. Bustos, et al., *Regret After Gender-Affirmation Surgery: A Systematic Review and Meta-Analysis of Prevalence, Plastic and Reconstructive Surgery Global Open* (Mar. 19, 2021), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8099405/>.

30. Vera L. Negenborn, et al., *Lethal Necrotizing Cellulitis Caused by ESBL-Producing E. Coli After Laparoscopic Intestinal Vaginoplasty*, *Journal of Pediatric and Adolescent Gynecology* (Feb. 2017), available at <https://www.sciencedirect.com/science/article/abs/pii/S1083318816301747>

31. See *id.*; see also Biggs, *The Dutch Protocol*, *supra* n.24 (discussing a patient who died because a vaginoplasty was attempted with part of his intestine, which became infected).

actually *create* or *worsen* the condition it is attempting to treat.³² In this context, advocates of “gender affirming care” say that puberty blockers or cross-sex hormones are necessary to treat an inconsistency between the minor’s sex and perception. But delaying a child’s natural puberty while his or her peers continue on to develop the characteristics that come from puberty may actually contribute to any existing confusion or discordance related to the child’s sex.³³ This iatrogenic effect potentially extends even to social transitioning, where adults “affirming” a minor’s perceived gender may inadvertently make it more likely that the minor will continue on to medical interventions such as puberty blockers, cross-sex hormones, and surgery.³⁴ It is for this reason that the United Kingdom’s National Health Service has recognized that social transition is *not* a “neutral act” but rather an “active intervention” that can alter the course of a child’s development.³⁵ Thus, even social transitioning implicates the risks associated with puberty blockers, cross-sex hormones, and surgery.

B. Benefits

There is no reliable evidence to support the conclusion that these treatments result in long-term improvement. Although some studies have shown short-term benefits, especially in terms of reducing feelings of dysphoria, they do not control for the confounding effects of psychotherapy or a placebo effect, so these studies are unable to establish that puberty blockers and cross-sex hormones are superior alternatives to psychotherapy. Thus, proponents of these treatments greatly exaggerate their benefits.

One of the greatest pieces of misinformation associated with these treatments are the unfounded claims that minors in distress who are not able to access drugs and surgeries are at imminent risk of suicide and that drugs and surgeries are needed to reduce that risk.³⁶

The purported evidence supporting this assertion is grossly overstated at best and outright misleading at worst. For example, a popular article by one of the most vocal proponents of gender-affirming care cited six studies related to suicidality

32. See Leor Sapir, *The School-to-Clinic Pipeline*, City Journal (Autumn 2022), available at <https://www.city-journal.org/gender-transitions-school-to-clinic-pipeline>.

33. Biggs, *The Dutch Protocol*, *supra* n.24.

34. Leor Sapir, *A Cause, Not A Cure*, City Journal (May 10, 2022), available at <https://www.city-journal.org/new-study-casts-doubt-on-gender-affirming-therapy>

35. See NHS England, *supra* n.5, at 11–12.

36. See, e.g., Jack Turban, *The Evidence for Trans Youth Gender-Affirming Medical Care*, Psychology Today (Jan. 24, 2022), available at <https://www.psychologytoday.com/us/blog/political-minds/202201/the-evidence-trans-youth-gender-affirming-medical-care>; see also Turban, *supra* n.9.

and gender-affirming care.³⁷ But these studies are riddled with methodological weaknesses that foreclose the claim that “the evidence shows” transitioning treatments cause a reduction in the risk of suicide.³⁸ Indeed, *the lead author* of one of the studies stated that the article overstated her research and that she “cannot claim that [her] research would have shown that gender affirming hormonal treatment reduces suicidality.”³⁹ Instead, for individuals who have undergone inpatient gender reassignment procedures, the suicide rates, psychiatric morbidities, and mortality rates remain markedly elevated above the background population.⁴⁰ In the U.K., where patients were subject to a two-year waiting period, the U.K.’s major gender clinic reported four deaths by suicide out of 15,000 patients.⁴¹ To be clear, every suicide is tragic. But there is no reliable evidence to suggest that *transitioning treatments* are the way to prevent one. And there is even reason to wonder whether these treatments may actually *contribute* to suicidal behavior.⁴²

Moreover, although these treatments have been associated with self-reported, short-term improvement in a minor’s mental health, there is a strong possibility that this improvement is the result of a placebo effect.⁴³ Specifically, the mere fact that an adolescent receives these treatments may lead to a self-reported improvement in his or her psychological outlook—even if the physical effects caused by the treatments are not themselves the cause of that improvement. And given the serious and long-term risks associated with these treatments, they cannot be ethically or medically justified on the basis of a placebo effect that leads to self-reported, short-term

37. See Turban, *supra* n.36 (citing L.R. Allen, et al., *Well-Being and Suicidality Among Transgender Youth After Gender-Affirming Hormones*, *Clinical Practice in Pediatric Psychology* (2019), available at <https://psycnet.apa.org/record/2019-52280-009?doi=1>; R. Kaltiala, et al., *Adolescent Development and Psychosocial Functioning After Starting Cross-Sex Hormones for Gender Dysphoria*, *Nordic Journal of Psychiatry* (Apr. 2020), available at <https://pubmed.ncbi.nlm.nih.gov/31762394/>; J.L. Turban, et al., *Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation*, *Pediatrics* (Feb. 2020), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7073269/>; A.E. Green, et al., *Association of Gender-Affirming Hormone Therapy with Depression, Thoughts of Suicide, and Attempted Suicide Among Transgender and Nonbinary Youth*, *Journal of Adolescent Health* (Apr. 2022), available at <https://pubmed.ncbi.nlm.nih.gov/34920935/>; J.L. Turban, et al., *Access to Gender-Affirming Hormones During Adolescence and Mental Health Outcomes Among Transgender Adults*, *PLoS One* (Jan. 2022), available at <https://pubmed.ncbi.nlm.nih.gov/35020719/>; D.M. Tordoff, et al., *Mental Health Outcomes in Transgender and Nonbinary Youths Receiving Gender-Affirming Care*, *JAMA Network Open* (Feb. 2022), available at <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2789423>.
38. Leor Sapir, *The Distortions in Jack Turban’s Psychology Today Article on ‘Gender Affirming Care,’ Reality’s Last Stand* (Oct. 7, 2022), available at <https://www.realityslaststand.com/p/the-distortions-in-jack-turbans-psychology>.
39. *Id.*
40. Stephen B. Levine, et al., *Reconsidering Informed Consent for Trans-Identified Children, Adolescents, and Young Adults*, *Journal of Sex & Marital Therapy* (Mar. 17, 2022), available at <https://www.tandfonline.com/doi/full/10.1080/0092623X.2022.2046221>; Cecilia Dhejne, et al., *Long-Term Follow-Up of Transsexual Persons Undergoing Sex Reassignment Surgery: Cohort Study in Sweden*, *PLoS One* (Feb. 22, 2011), available at https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0016885&utm_source=mandiner&utm_medium=link&utm_campaign=mandiner_202101; Wiepjes CM, et al., *Trends in Suicide Death Risk in Transgender People: Results from the Amsterdam Cohort of Gender Dysphoria Study (1972–2017)*, *Acta Psychiatrica Scandinavica* (Feb. 16, 2020), available at <https://onlinelibrary.wiley.com/doi/pdf/10.1111/acps.13164> (finding that suicides occur at a similar rate at all stages of transition, from pretreatment assessment to post-transition follow-up).
41. See Michael Biggs, *Suicide by Clinic-Referral Transgender Adolescents in the United Kingdom*, *Archives of Sexual Behavior* (2022), available at <https://pubmed.ncbi.nlm.nih.gov/35043256/>.
42. See NHS England, *Board of Directors: The Tavistock and Portman 53* (June 23, 2015) (noting a statistically significant increase in self-harm after a year of puberty suppression), available at <https://tavistockandportman.nhs.uk/documents/142/board-papers-2015-06.pdf>.
43. Alison Clayton, *Gender-Affirming Treatment of Gender Dysphoria in Youth: A Perfect Storm Environment for the Placebo Effect—The Implications for Research and Clinical Practice*, *Archives of Sexual Behavior* (Nov. 14, 2022), available at <https://link.springer.com/article/10.1007/s10508-022-02472-8>.

improvement.⁴⁴ Relatedly, the unsupported assertions regarding increased risk of depression, anxiety, or suicide if these treatments are denied possibly creates a nocebo effect—meaning the effect leads to deleterious results rather than beneficial ones (thus the opposite of a placebo effect). An excessive focus on an exaggerated or unsupported risk of suicide could result in a negative self-fulfilling prophecy that actually increases suicidality and suicide risk.⁴⁵

Indeed, other countries have already acknowledged that the benefits of these treatments do not outweigh the risks. Health authorities in Sweden, Finland, and the U.K. have conducted systematic reviews of evidence and, having found that the evidence of benefits is too uncertain to outweigh the risks, have decided to place severe restrictions on medical transition procedures.⁴⁶ Finland’s public-health body has called hormonal interventions “experimental” medicine.⁴⁷ And just recently, Sweden’s public-health body has made clear “that the risks of puberty suppressing treatment with GnRH-analogues and gender-affirming hormonal treatment currently outweigh the possible benefits because of “the continued lack of reliable scientific evidence concerning the efficacy and the safety of both treatments, the new knowledge that detransition occurs among young adults, and the uncertainty that follows from the yet unexplained increase in the number of care seekers, an increase particularly large among adolescents registered as females at birth.”⁴⁸ Nevertheless, organizations like the World Professional Health Association for Transgender Health (WPATH), continue to push for these treatments as the standard for all minors.⁴⁹ Organizations like WPATH do so for ideological rather than scientific or medical reasons, and they actively stifle dissent in the medical community.⁵⁰

44. Society for Evidence Based Gender Medicine, *Gender-Affirming Treatment of Gender Dysphoria in Youth: Are the Results Compromised by the Placebo Effect?* (Dec. 7, 2022), available at <https://segm.org/Placebo-effects-of-gender-affirmative-care> (“From the methods perspective, the placebo effect puts gender medicine studies at a high risk of bias due to both confounding (the anticipation of improvement affects the results, but its effect cannot be separate from the effect of the treatment) and measurement error (if a study participant expects a positive outcome, they will be more likely to make a positive judgment about the outcome, which will bias their self-reported outcome).”).

45. Clayton, *supra* n.43 (“However, an excessive focus on an exaggerate suicide risk narrative by clinicians and the media may create a damaging nocebo effect (e.g., a ‘self-fulfilling prophecy’ effect) whereby suicidality in these vulnerable youths may be further exacerbated.”).

46. See UK National Institute for Health Care and Excellence, *supra* n.12; UK National Institute for Health Care and Excellence, *Evidence Review: Gonadotrophin Releasing Hormone Analogues for Children and Adolescents with Gender Dysphoria* (Oct. 2020), available for download at <https://cass.independent-review.uk/nice-evidence-reviews/>; The Cass Review, *Interim Report* (Feb. 2022), available for download at <https://cass.independent-review.uk/publications/interim-report/>; Sweden’s National Board of Health and Welfare (Socialstyrelsen), *Care of Children and Adolescents with Gender Dysphoria* (2022), available at <https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/kunskapsstod/2022-3-7799.pdf>; The Council for Choices in Health Care in Finland, *Summary: Medical Treatment Methods for Dysphoria Associated with Variations in Gender Identity in Minors—Recommendation* (June 16, 2020), available at [https://palveluvalikoima.fi/documents/1237350/22895008/Summary_minors_en+\(1\).pdf/fa2054c5-8c35-8492-59d6-b3de1c00de49/Summary_minors_en+\(1\).pdf?t=1631773838474](https://palveluvalikoima.fi/documents/1237350/22895008/Summary_minors_en+(1).pdf/fa2054c5-8c35-8492-59d6-b3de1c00de49/Summary_minors_en+(1).pdf?t=1631773838474).

47. See The Council for Choices in Health Care in Finland, *Recommendation of the Council for Choices in Health Care in Finland (PALKO/COHERE Finland)* (2020), available at https://segm.org/sites/default/files/Finnish_Guidelines_2020_Minors_Unofficial%20Translation.pdf.

48. Sweden’s National Board of Health and Welfare (Socialstyrelsen), *Summary: Care of Children and Adolescents with Gender Dysphoria* (Dec. 16, 2022), available at <https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/kunskapsstod/2022-3-7799.pdf> (English translation of executive summary).

49. See, e.g., WPATH Standards of Care 8, *supra* n.4.

50. For example, the former President of USPATH (the U.S. affiliate of WPATH) stated that she resigned in part because she could “not abide the tactics of muzzling leaders in the USPATH/WPATH”—tactics that were endorsed by some within the organization after she had expressed concern during an interview about the potential for regret among adolescents who transition due to the lack of safeguards under the existing regime of “gender affirming care.” See Lisa Selin Davis, *A Trans Pioneer Explains Her Resignation from the U.S. Professional Association for Transgender Health*, Quillette (Jan. 6, 2022), available at <https://quillette.com/2022/01/06/a-transgender-pioneer-explains-why-she-stepped-down-from-uspath-and-wpath/>.

The combination of overstated benefits (particularly in the context of preventing suicide), understated risks, and denial of meaningful alternatives (such as psychotherapy) cannot ground an informed consent process. Parents are often faced with the grotesque slogan that they can have “a dead daughter or a live son” (or vice versa).⁵¹ They hear this not just from activists in the media but from the very medical professionals with whom they interact and the professional associations in which their providers hold membership. Despite the fact that there is no reliable evidence suggesting that these treatments actually reduce the risk of suicide,⁵² it is unsurprising that parents confronted with this false choice would err on the side of purported “life-saving treatment.” Similarly, many of the long-term risks, such as a loss of fertility or adult sexual function, may not be risks that children and adolescents can adequately comprehend⁵³—especially when medical institutions downplay those risks.

Given this lack of informed consent, it is unsurprising—though no less tragic—to see the rise of individuals known as “detransitioners.”⁵⁴ These are people who came to regret the harm caused by undergoing physiological interventions to alter their appearance and bodily functions to align with their perceived sex or perceived gender.⁵⁵ Because the current “gender affirming” model is still relatively new, there are no studies on rates of regret and detransition among the cohort that received treatment under this model, but claims about regret being “extremely rare” are based either on studies of adults who transitioned as adults or of minors who were transitioned under highly restrictive and controlled conditions.

C. The Flawed “Dutch Protocol”

Proponents of the safety and efficacy of these treatments often try to defend them by referencing a study published by a group of Dutch clinicians. This Dutch study was among the earliest examples of attempts to document the use of puberty blockers as a treatment for children suffering from gender dysphoria.⁵⁶ According to the

51. See Kenneth J. Zucker, *Adolescents with Gender Dysphoria: Reflections on Some Contemporary Clinical and Research Issues*, Archives of Sexual Behavior (July 18, 2019), available at <https://link.springer.com/article/10.1007/s10508-019-01518-8>.

52. Levine, *supra* n.40, at n.47 (“The ‘transition or suicide’ narrative falsely implies that transition will prevent suicides” but even though, “in the short term, gender-affirmative interventions can lead to improvements in some measures of suicidality, neither hormones nor surgeries have been shown to reduce suicidality in the long-term.” (citations omitted)).

53. Antony Latham, *Puberty Blockers for Children: Can They Consent?*, The New Bioethics (June 27, 2022), available at <https://www.tandfonline.com/doi/full/10.1080/20502877.2022.2088048> (“The brain is biologically and socially immature in childhood and unlikely to understand the long-term consequences of treatment.”).

54. Lisa Littman, *Individuals Treated for Gender Dysphoria with Medical and/or Surgical Transition Who Subsequently Detransitioned: A Survey of 100 Detransitioners*, Archives of Sexual Behavior (Nov. 2021), available at <https://pubmed.ncbi.nlm.nih.gov/34665380/>; Elie Vandenbussche, *Detransition-Related Needs and Support: A Cross-Sectional Online Survey*, Journal of Homosexuality (Apr. 30, 2021), available at <https://www.tandfonline.com/doi/full/10.1080/00918369.2021.1919479>.

55. Littman, *supra* n. 54; Vandenbussche, *supra* n.54.

56. See Annelou de Vries, et al., *Puberty Suppression in Adolescents with Gender Identity Disorder: A Prospective Follow-Up Study*, Journal of Sex Medicine (Aug. 8, 2011), available at <https://pubmed.ncbi.nlm.nih.gov/20646177/>; Annelou de Vries, et al., *Young Adult Psychological Outcome After Puberty Suppression and Gender Reassignment*, Pediatrics (Oct. 2014), available at <https://pubmed.ncbi.nlm.nih.gov/25201798/>.

publications describing the study, some subjects of the study who underwent puberty blockade and ultimately surgery reported a resolution of their gender dysphoria 1.5 years after the surgery.⁵⁷ Advocates point to the results of this study as the foundation for the “gender affirming care” of today.

Reliance on the Dutch study to justify gender affirming care is misplaced for numerous reasons. Take first the substance of the study itself, which has been strongly criticized for their biased methodology and unimpressive results.⁵⁸ For example, the Dutch team used a flawed scale for the purpose of measuring dysphoria, which largely renders the study’s observed “improvement” meaningless.⁵⁹ Moreover, the results excluded one patient who died during a vaginoplasty, and the study failed to mention that the patient’s death was the consequence of puberty suppression—which prevented the patient’s penis from growing large enough to facilitate a vaginoplasty, so physicians were forced to use tissue from the patient’s intestine.⁶⁰ The intestine became infected, which ultimately led to the patient’s death.⁶¹

Second, the only improvement suggested by the study resulted from a follow-up just 18 months after the surgery. This short amount of time is manifestly inadequate for determining the ultimate long-term efficacy and safety of these treatments. Indeed, one of the Dutch researchers who co-authored one of the articles reporting the study admitted that “a truly proper follow-up needs to span a minimum period of 20 years.”⁶² As of December 2022, the Dutch researchers have yet to publish any long-term outcomes.

Third, the structure of the study meant that it could not reliably distinguish between the effects of the medical interventions and the effects of psychotherapy.⁶³ The Dutch study required that subjects demonstrate a stable state of mind before receiving puberty blockers or cross-sex hormones and then continuously receive mental therapy throughout the process.⁶⁴ Thus, there is no reliable way of knowing how much any reported improvement was attributable to the hormones as opposed to the therapy. Simply put, the Dutch research does not show that hormones are a *superior* treatment to psychotherapy.

57. Levine, et al., *supra* n.40.

58. Biggs, *The Dutch Protocol*, *supra* n.24.

59. *Id.*

60. *Id.*

61. *Id.*

62. *Id.*; see also Leor Sapir, “Trust the Experts’ Is Not Enough: U.S. Medical Groups Get the Science Wrong on Pediatric ‘Gender Affirming’ Care,” *Manhattan Institute* 5 (Winter 2022), available for download at <https://www.manhattan-institute.org/how-to-respond-to-medical-authorities-claiming-gender-affirming-care-is-safe>.

63. Sapir, *supra* n.62, at 5.

64. *Id.*

Finally, the eligibility criteria for individuals to participate in the Dutch study effectively eliminated any significance of their findings.⁶⁵ To be eligible for puberty blockers under the study, subjects had to *also* satisfy the heightened eligibility criteria for cross-sex hormones, thus effectively guaranteeing that any case casting doubt on the safety or efficacy of puberty blockers was excluded at the outset.⁶⁶ All these problems likely explain why no study has ever successfully replicated the results of the Dutch study.⁶⁷

Next, even taking the Dutch study at face value, the children and adolescents seeking these treatments today are *far* different from those who participated in the Dutch study. For example, to be eligible for the study, subjects had to fulfill five criteria: (1) they suffered from *early-onset* gender dysphoria, (2) the condition persisted or intensified into adolescence, (3) they were psychologically and emotionally stable with no comorbid psychiatric diagnoses, (4) they had parental approval, and (5) informed consent was obtained as a continuous process, often over the course of months.⁶⁸

In contrast to the prototypical subject for the Dutch protocol, the data today shows a very different set of patients. The majority of minors seeking treatment now are adolescent girls with no prior history of dysphoria and very high rates of mental health comorbidities.⁶⁹ Moreover, proponents of these treatments often argue that parental approval should *not* be a requirement for receiving hormones.⁷⁰ Under the affirmative model, what appears to drive treatment decisions is gender identity, not gender dysphoria. Given these changes, the Dutch researchers themselves have acknowledged that their research may not apply to the current environment.⁷¹ Thus, the Dutch study has little to tell us about the use of these treatments for the vast majority of children and adolescents who receive them today.

65. Levine, et al., *supra* n.40 (“It is important to realize that the Dutch sample as carefully selected, which introduced a source of bias, and also challenges the study’s applicability. From the 196 adolescents initially referred, 111 were considered eligible to start puberty blockers, and of this group, only the 70 most mature and mentally stable who proceeded to cross-sex hormones were included in the study.”).

66. *Id.*

67. *Id.* (“A recent attempt to replicate the results of the first Dutch study found no demonstrable psychological benefit from puberty blockade, but did find that the treatment adversely affected bone development. The final Dutch study has never been attempted to be replicated with or without a control group.” (citations omitted)).

68. Sapir, *supra* n.62, at 5–6.

69. Sapir, *supra* n.62, at 6.

70. *Id.*

71. See *More Research Is Urgently Needed into Transgender Care for Young People: ‘Where Does the Large Increase of Children Come from?’*, Voorzij (Feb. 27, 2021), available at <https://www.voorzij.nl/more-research-is-urgently-needed-into-transgender-care-for-young-people-where-does-the-large-increase-of-children-come-from/> (Translation of Dutch article where Dr. Thomas Steensma said other countries were “blindly adopting [their] research”) (cited by Leor Sapir, *The Distortions in Jack Turban’s Psychology Today Article on ‘Gender Affirming Care,’ Reality’s Last Stand* (Oct. 7, 2022), available at <https://www.realityslaststand.com/p/the-distortions-in-jack-turbans-psychology>).

Finally, even if the Dutch protocol *were* to provide the proper standard of care, the Dutch protocol is not what is happening on the ground in the United States. For example, the Dutch protocol acknowledges that gender dysphoria in children is very likely to *desist* by adolescence or early adulthood, meaning the dysphoria will resolve on its own without medical intervention.⁷² But the treatment model today, as clarified by the American Academy of Pediatrics, assumes that gender identity can be known from a very early age and, once declared, must be affirmed by adults.⁷³ In other words, proponents effectively claim that gender identity is innate and fixed—which is contrary to what the Dutch researchers stated.⁷⁴

Another significant departure of today's treatment from the Dutch protocol relates to mental health. The Dutch protocol studied only minors who had no serious co-occurring mental health problems.⁷⁵ But today, most referrals to pediatric gender clinics have high rates of mental health problems, such as anxiety, depression, ADHD, and autism.⁷⁶ The independent study in the U.K. found that up to one third of patients referred to the U.K.'s Gender Identity Development Service have autism or other neuroatypical conditions.⁷⁷ By contrast, some American medical professionals advocating the affirmative model have gone so far as to suggest, without citing any evidence, that medical transition can serve as a “treatment” for autism.⁷⁸ A legitimate implementation of the Dutch protocol (setting aside the study's numerous flaws) would require addressing these mental health issues through alternative means,

72. Leor Sapir, *Affirming Deception*, City Journal (Dec. 6, 2022), available at <https://www.city-journal.org/wpath-finally-acknowledges-europes-restrictions-on-gender-affirming-care> (noting that the Dutch model “acknowledges that gender dysphoria in children is very likely to desist by adolescence or early adulthood, in many cases resolving into homosexuality”).
73. See, e.g., Rafferty, *supra* n.4 (stating that “children who are prepubertal” and assert a gender identity different from their sex “know their gender as clearly and as consistently as their developmentally equivalent peers who identify as cisgender”).
74. See, e.g., Cohen-Kettenis, et al., *The Treatment of Adolescent Transsexuals: Changing Insights*, Journal of Sex Medicine (Aug. 2008), available at <https://pubmed.ncbi.nlm.nih.gov/18564158/> (noting that the pathological basis for gender identity is “poorly understood” and “its diagnosis relies totally on psychological methods”).
75. See Henriette A. Delemarre-van de Wall & Peggy T. Cohen-Kettenis, *Clinical Management of Gender Identity Disorder in Adolescents: A Protocol on Psychological and Paediatric Endocrinology Aspects*, European Journal of Endocrinology (Nov. 2006), available at https://ejebioscientifica.com/view/journals/eje/155/suppl_1/1550131.xml; Annelou L.C. de Vries, et al., *Clinical Management of Gender Dysphoria in Adolescents*, International Journal of Transgenderism (Oct. 17, 2008), available at https://www.tandfonline.com/doi/abs/10.1300/J485v09n03_04; de Vries, et al., *supra* n.23.
76. The Cass Review, *supra* n.46, at 30 (“In addition, approximately one third of children and young people referred to IDS have autism or other types of neurodiversity.”); Tracy A. Becerra-Culqui, et al., *Mental Health of Transgender and Gender Nonconforming Youth Compared with Their Peers*, Pediatrics (May 2018), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5914494/>; Nastasja M. de Graaf & Polly Carmichael, *Reflections on Emerging Trends in Clinical Work with Gender Diverse Children and Adolescents*, Clinical Psychology and Psychiatry (Nov. 28, 2018), available at <https://journals.sagepub.com/doi/10.1177/1359104518812924>; Emily Thrower, et al., *Prevalence of Autism Spectrum Disorder and Attention-Deficit Hyperactivity Disorder Amongst Individuals with Gender Dysphoria: A Systematic Review*, Journal of Autism and Developmental Disorders (Nov. 15, 2019), available at <https://link.springer.com/article/10.1007/s10803-019-04298-1>; Alexis Clyde, et al., *Autism Spectrum Disorder and Anxiety Among Transgender Youth: Use of the Social Communication Questionnaire (SCQ)*, Journal of Autism and Developmental Disorders (Nov. 24, 2022), available at <https://link.springer.com/article/10.1007/s10803-022-05814-6>; Aimilia Kallitsounaki, et al., *Links Between Autistic Traits, Feelings of Gender Dysphoria, and Mentalising Ability: Replication and Extension of Previous Findings from the General Population*, Journal of Autism and Developmental Disorders (Aug. 1, 2020), available at <https://link.springer.com/article/10.1007/s10803-020-04626-w>; Lucy McPhate, et al., *Gender Variance in Children and Adolescents with Neurodevelopmental and Psychiatric Condition from Australia*, Archives of Sexual Behavior (Apr. 2021), available at <https://pubmed.ncbi.nlm.nih.gov/33788061/>; Douglas H. Russell, et al., *Prevalence of Mental Health Problems in Transgender Children Aged 9 to 10 Years in the US, 2018*, JAMA Network (July 22, 2022), available at <https://jamanetwork.com/journals/jama-networkopen/fullarticle/2794486>; Anna I.R. van der Miesen, et al., *Autistic Symptoms in Children and Adolescents with Gender Dysphoria*, Journal of Autism and Developmental Disorders (May 2018), available at <https://pubmed.ncbi.nlm.nih.gov/29189919/>.
77. The Cass Review, *supra* n.46, at 30.
78. See, e.g., Diane Ehrensaft, *The Gender Creative Child: Pathways for Nurturing and Supporting Children who Live Outside Gender Boxes* 103 (2016).

such as psychotherapy, before turning to transitioning medication and surgery as a last resort.

In sum, the benefits of these treatments are unproven while the risks are numerous and grave. These facts alone counsel against prescribing these treatments to children and adolescents. Moreover, the main study held up by proponents of these treatments contains many flaws that foreclose any ability to rely on its conclusions, is not even applicable to the typical patient receiving these treatments today, and used controls that are not followed in the real world. And modern studies suffer from the same methodological problems⁷⁹—which explains why the countries that have conducted systematic reviews (like Finland, Sweden, and the U.K.) have found the evidentiary support for these treatments too low to justify them. Children and adolescents must be protected from the unscientific and dangerous treatments taking place today.

79. See, e.g., Jesse Singal, “Science Vs” Cited Seven Studies To Argue There’s No Controversy About Giving Puberty Blockers and Hormones to Trans Youth. *Let’s Read Them.*, Singal-Minded (June 10, 2022), available at <https://jessesingal.substack.com/p/science-vs-cited-seven-studies-to>.

CONCLUSION

Our country has witnessed a recent and dramatic increase in the number of children and adolescents who report a variance between their sex and their perception of their gender or sex. Proponents of so-called “gender affirming” care assert that the way to help these children is by modifying their bodies through the use of puberty blockers, cross-sex hormones, and surgeries. Despite the total lack of evidence to support these types of interventions, the medical establishment has permitted ideology, instead of facts, to govern the administration of life-altering and harmful medical treatments to minors.

As a result, children and adolescents face risks of permanent infertility, lifelong loss of adult sexual function, and even death in some instances. Given the unfortunate reality of medical organizations endorsing unsupported claims and refusing to submit those claims to open and honest scientific debate, State Legislatures must intervene to protect children and adolescents from these dangerous and baseless treatments.



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